

# Transurethral Microwave Thermotherapy (TUMT) Efficacy in urinary retention due to benign prostatic hyperplasia



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## INTRODUCTION & OBJECTIVE

Transurethral microwave thermotherapy is an anesthesia-free, outpatient method of treating lower urinary tract symptoms due to benign prostatic hyperplasia (BHP). The goal of microwave therapy is to provide efficacious treatment with less patient risk.

**Objective:**  
To determine the efficacy of transurethral microwave thermotherapy (TUMT) in treating patients with complete urinary retention secondary to BHP.

## MATERIAL & METHOD

### Prospective study

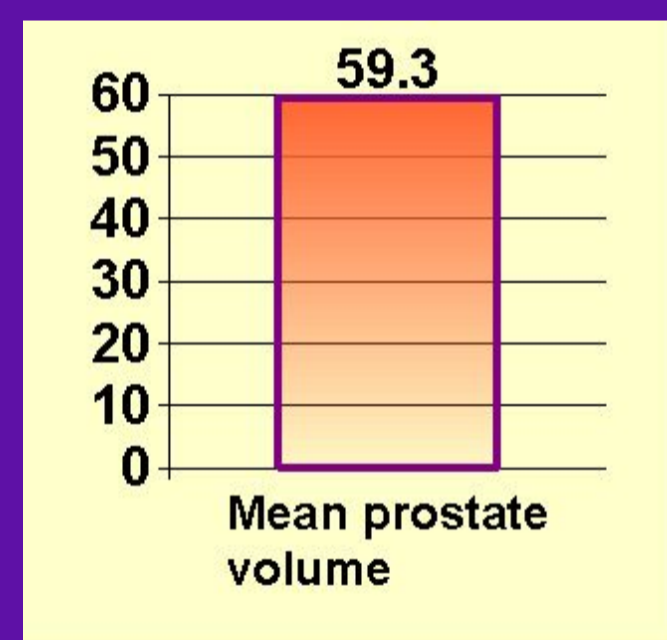
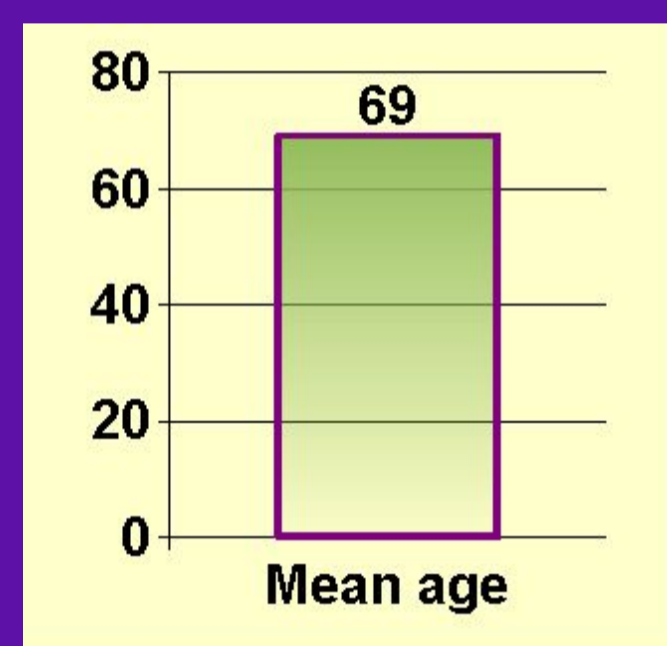
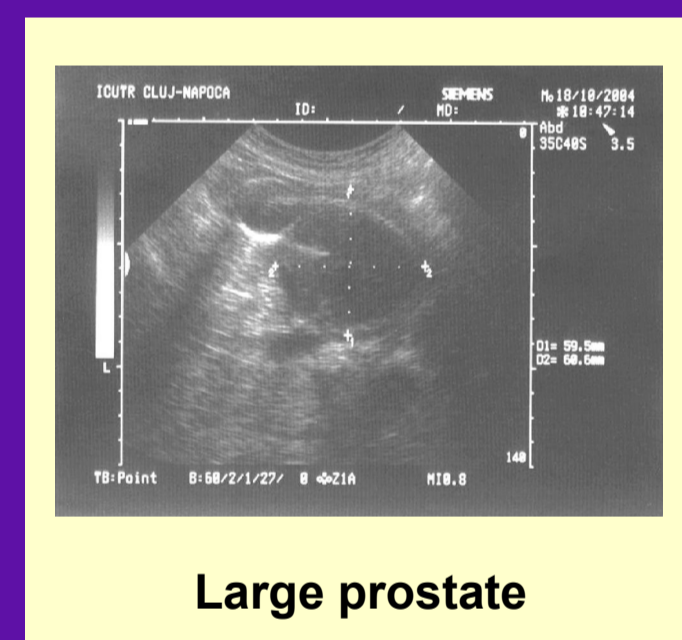
- July 2003 – July 2004
- 155 patients

### Inclusion criteria

- Urinary retention due to BPH
- BPH non-responsive to medication
- Increased surgical or anaesthetic risk
- Or reluctance to undergo surgery

### Patients evaluation

- History and physical examination
- Urine culture
- PSA level
- Ultrasound
- Cystoscopy
- Anaesthetic risk



### Follow-up

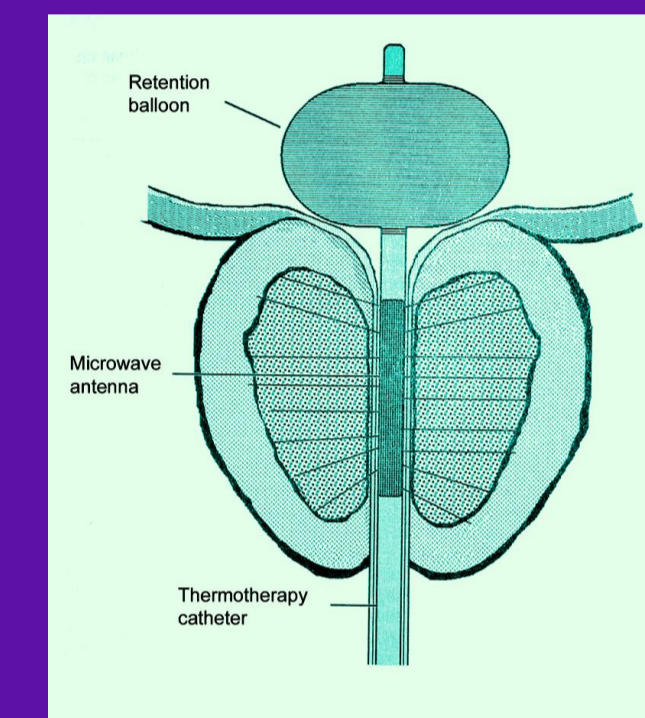
- Every 3 months
- Mean follow-up 12 months
- Ultrasound (postvoiding residual)
- IPSS
- Urofluometry

Success was defined as the ability to urinate after TUMT without the need for further intervention.

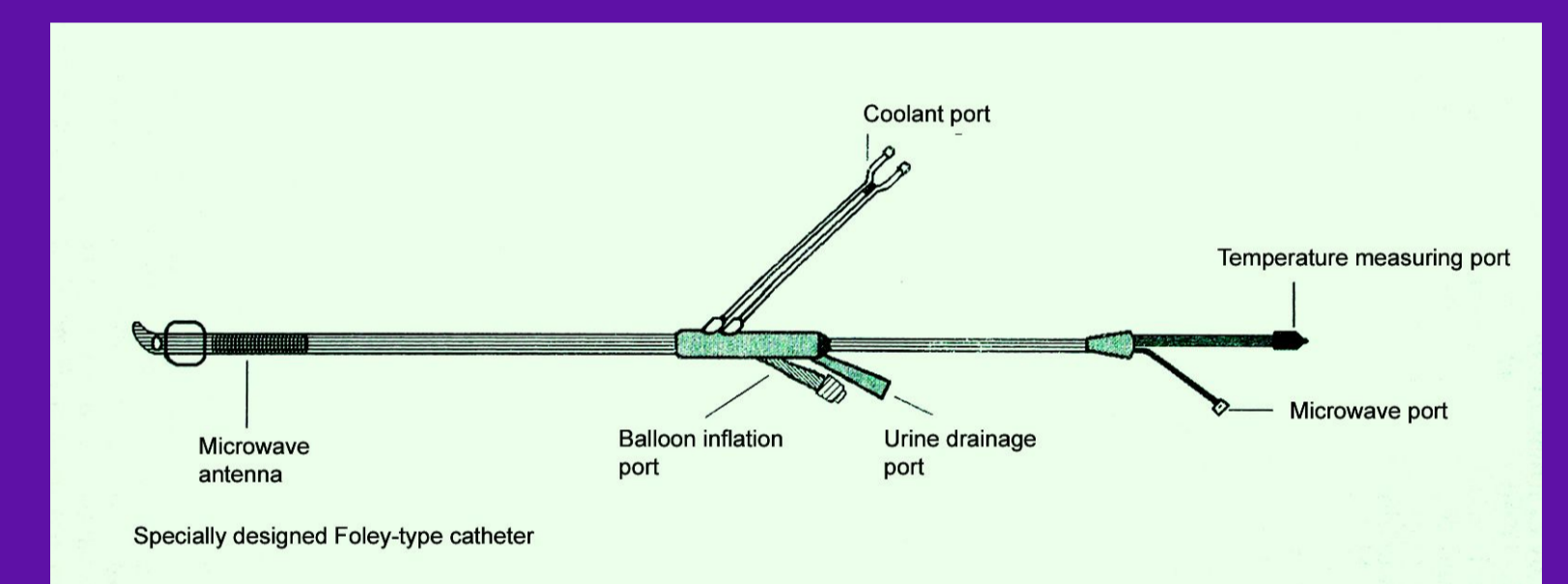
With the patient in dorsal position, under a iv sedation, the specially designed Foley-type catheter is placed, allowing a microwave antenna to be properly positioned within the prostatic fossa. It allows achieving temperatures between 50 to 60°C for 30 minutes.

A Foley catheter was reinserted after TUMT and removed at 2 weeks for a voiding trial.

Patients unable to void were recatheterized, and voiding trials were repeated at two weeks interval.



Microwave catheter in place, showing the approximate heat field produced.

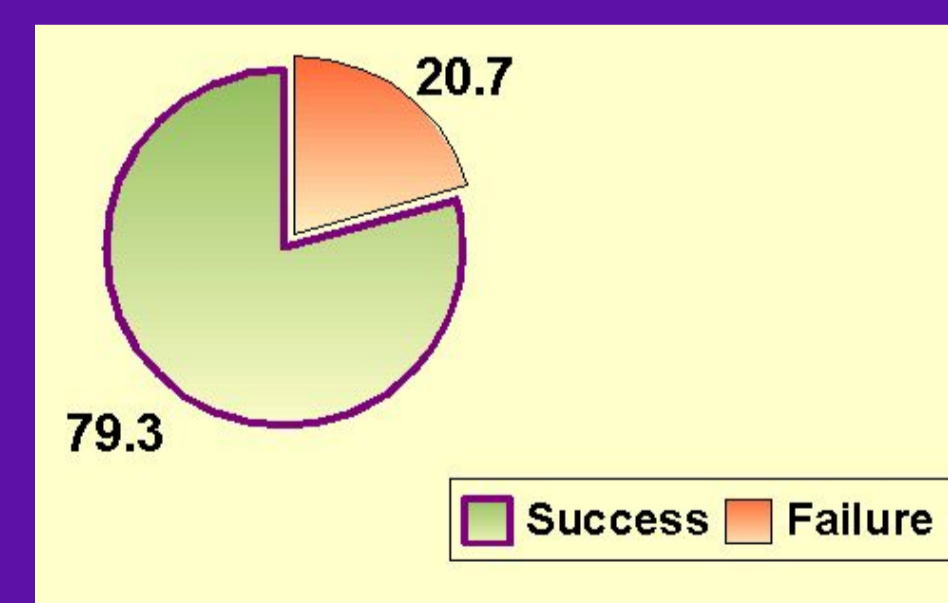


## RESULTS

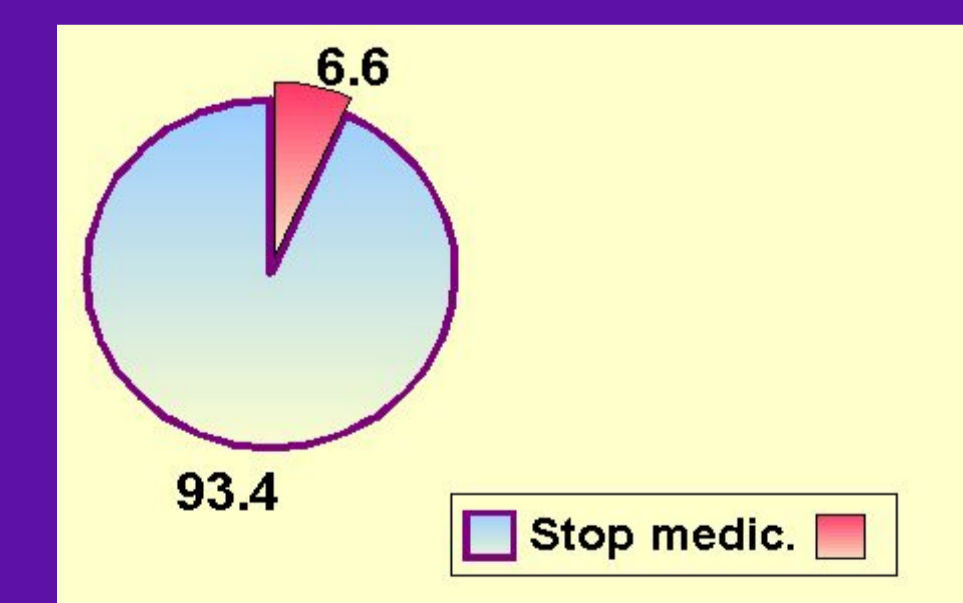
The overall success rate was 79.3% (123 patients were able to urinate).

Mean time of catheterization after TUMT was 3.2 weeks.

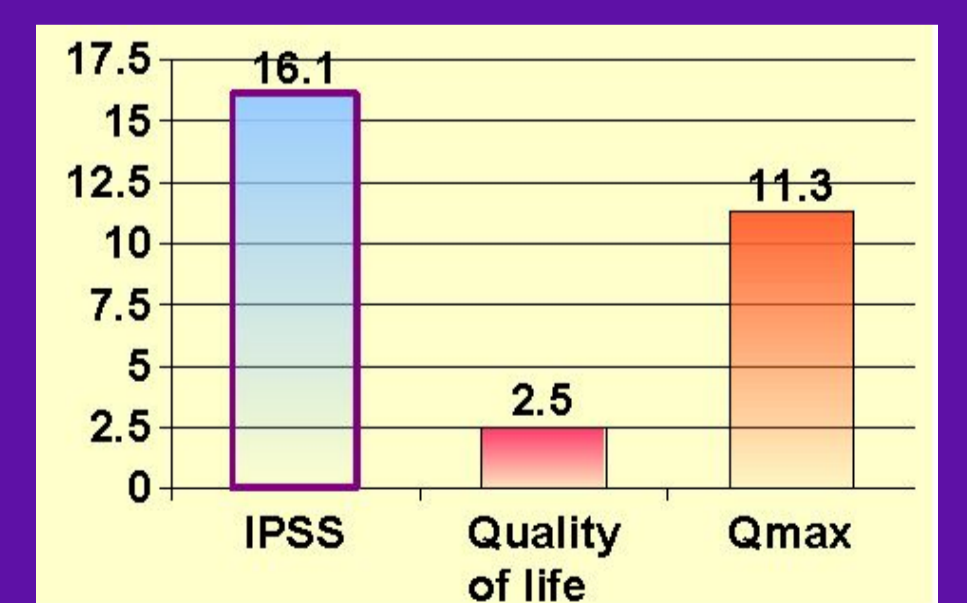
After TUMT, 115 patients who were voiding, were able to reduce or stop their medication for BHP.



Overall success rate



Percent of the successfully treated patients who were able to reduce or stop their medication for BHP.



Functional results

## CONCLUSION

We found an encouraging success rate with TUMT in relieving urinary retention in patients with BHP. It is an acceptable option for patients who are considered high risk for surgery.

Several patients required multiple voiding trials before spontaneous urination, which suggests that improvements in bladder outlet obstruction might require a prolonged period after TUMT.